



Northern muster

Information for rural business in North Queensland



**Queensland
Government**

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Meeting the demand for sustainable beef

Most consumers purchase on price alone

WHETHER we like it or not, consumers are expecting sustainability as a baseline condition of the product they purchase. Regrettably, history continues to prove that most of these consumers are not overly willing to pay extra for product certainty.

While consumers consistently tell market research surveys they are willing to pay extra for socially and environmentally sourced products, truth is, most consumers will purchase on price alone.

Rather than paying a premium, consumer behaviour is increasingly suggesting an ethical and sustainable product is expected, as justification for the social license the consumer has granted the industry.

While consumers are unwilling to pay more for sustainability, they are willing, and able, to punish an industry when it is lacking the desired traits.

Over the past decade, this mindset has been utilised by marketing and advertising agencies. Now environmental and ethical claims are consistently considered in consumer choice. Retailers are more and more willing to offer these sweeping claims of product sustainability, to advance market share, and minimise potential investor backlash, arising from unethical or environmentally unsound products or processes.

The marketing claims encourage consumers to buy a product if the producer appears to take sustainability seriously – regardless of how their particular version of sustainability and ethical performance is measured.

This strategy continues to drive more companies to

develop sustainability or ethical product statements. Increasing pressure is mounting to demonstrate the principles or process behind the claims to ensure the consumer is getting what they are paying for.

The time for giving lip service to an increasingly environmentally and ethically-aware consumer is over. Today, as never before, consumers expect their food to be grown and processed in an ethical and environmentally sustainable way – and if the industry is unable or unwilling to demonstrate performance, in time expect to be shunned in the market place.

However, the producer or industry sector that can provide, and clearly demonstrate a sustainable and ethical product, with the expected rigour to support their performance criteria offered, will find overwhelming market acceptance and support.

Fortunately the Australian grazing industry already has world-leading production processes, product traceability and industry-specific regulation in place to support our claims of clean, green and ethical beef. All that has been missing is a way of collectively reporting this to the consumer market.

Now, after nearly five years of testing and trials, Grazing BMP has the ability to collectively deliver a single, industry wide reporting tool that clearly identifies and demonstrates these performance expectations. This voluntary, industry-led program has the ability to identify areas for business improvement including pathways to address any issues. Grazing BMP has the ability to successfully deliver high level, quantifiable data about industry performance, at no

cost to the producer.

As the two-year pilot draws to a close, the program has successfully engaged about 15 per cent of graziers in two of Queensland's major beef catchments.

As a consequence, the grazing industry is now supplying clear, concise and robust information about the ethical and environmental stewardship performance of graziers.

With phase two of the program about to kick off, the Grazing BMP partnership is looking to build on its success to date by expanding the program across Queensland. The aim of this is to further strengthen the data by expanding the number of participants involved, and to enhance our understanding of our industry's performance to supply chains and consumers.

The Australian grazing industry is a world leader in high quality, ethically and environmentally sound production methods that is extensively regulated and reviewed to ensure product safety and production transparency. Grazing BMP offers a single tool that will successfully demonstrate these, and assist to develop a stronger recognition of our industry performance.

If consumers want sustainable and ethically sourced products, and believe it to be an expectation of the producer, we don't need to reinvent the wheel or sign up to externally developed programs. We simply need to collectively present our story to all comers seeking market assurance.

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Editorial

El Nino likelihood cools a tad

RECENT forecasts from the Bureau of Meteorology suggest the prospects of an El Nino weather pattern this summer have eased slightly. The July ENSO statement indicated that, despite the tropical Pacific Ocean being primed for an El Nino pattern, recent signals showed that some cooling had taken place.

However, the bureau has not completely dismissed the prospects of an El Nino pattern. The chances of an El Nino pattern developing over the coming months is still at 50 per cent, which is still very significant at double the normal likelihood of an El Nino event.

While some areas may be fortunate enough to receive early storms, the current forecasts indicate that it will be safer for many regions to cater and prepare as best they can for a late break. This is a daunting outlook for many producers, with 75pc of Queensland still drought declared under State Government processes.

Assistance for drought-hit producers is still available under the Drought Relief Assistance Scheme. Contact your local DAFF officer, or 13 25 23, for further information.

Please remember all claim forms must be submitted for processing within six months of the date of purchase for water infrastructure and date of movement for freight subsidies.

Also, you'll find useful information, tools and recorded webinars on the FutureBeef website www.futurebeef.com.au on a wide range of topics. FutureBeef is a research, development and extension collaboration between Queensland, Northern Territory and Western Australia state agriculture departments and Meat and Livestock Australia.

We hope you enjoy this issue and please contact the editorial team with any inquiries or feedback.

To register to receive the online version, subscribe on the FutureBeef website (www.futurebeef.com.au/resources/newsletters/) or by sending us an email northernmuster@daff.qld.gov.au.

Mellissa Holzwart, Joanna Robertson and Rebecca Gunther
FutureBeef Team
Northern muster Editors



Livestock transport code of practice

Queensland aligned with other states

THE Code of Practice for Transport of Livestock (the code) is the result of discussions nationally between the livestock industries, scientists, welfare agencies and government. It aims to safeguard the welfare of livestock being transported.

The code covers the transport of both commercial and non-commercial livestock. The code applies once livestock are assembled prior to loading and continues until the livestock are unloaded at the final destination.

The code aligns Queensland with other states and territories to achieve a nationally consistent approach to livestock transport.

Compliance with the code became compulsory under the Animal Care and Protection Act 2001 on January 31, 2014, and the qualified six-month grace period for enforcement ended on August 1, 2014.

It is recommended that producers, drivers and

receivers of livestock familiarise themselves with the laws and ensure they are compliant. The code includes the responsibilities of those involved in the transport, maximum times off water, ensuring that livestock are fit for the intended journey, handling rules and special considerations.

Under the code, animals that are not fit for the intended journey must not be transported. It is the responsibility of the consignor and the transporter to ensure the animals are fit for the intended journey.

The code applies to the following animals being transported by road, rail or by container or vehicle aboard a ship:

- Alpacas
- Camels
- Sheep
- Horses
- Poultry
- Emus
- Buffaloes
- Cattle
- Goats
- Pigs
- Ostriches
- Deer



Biosecurity Queensland has held the first in a series of webinars to help answer any questions on the changes to the compulsory requirements for transporting livestock.

For further information and details of future webinars, producers can contact Biosecurity Queensland on 13 25 23 or visit www.business.qld.gov.au.

For more on national animal transport standards, visit www.australiananimalwelfare.com.au.



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There's still a cattle overload in NQ

Market analysis

OUR North Queensland marketplace is still overloaded with cattle with the ongoing widespread dry conditions. Our only export abattoir in the deep north at Townsville is booked up with cattle into September and prices have slipped to about \$3/kg in July for best bullocks.

Some producers needing to further reduce numbers have been forced to pay the extra freight and send cattle further south for processing.

Our eastern states weekly kill numbers have been at record levels with many weeks tallying over 165,000 head with over 50 per cent of these processed in Queensland.

At the end May, an all-time record weekly kill for our eastern states of 169,347 head was recorded. The national slaughter numbers for the financial year just ended will be over eight million head for the second year in a row. These high processing rates will impact on future years killable numbers.

Also, the high female percentage of the slaughter rates over the last two drought years

Bullock prices slip to \$3/kg

will impact on our calf drop for years ahead depending on when and how the drought breaks. With the 2013-14 financial year just ended, our tonnage exported reached a record of 1.183 million tonnes. The severe impact of the current drought, which has resulted in a cattle shortage, will hopefully come to an end with wide-spread rain. This cattle shortage should result in a rise in cattle prices. However, important factors such as market access and demand for both boxed and live export products needs to remain strong. Also, the value of the Australian dollar needs to remain close to, or below, the 90 cent mark.

Other big beef industry news is the signing of a free trade agreement (FTA) between Australia and Japan. However, producers will have to wait and see if any financial advantage will percolate down to their level.

The plan is for our present 38.5pc tariff on meat into Japan to reduce to 19.5pc over 18 years for frozen product and 38.5pc tariff back

to 23.5pc over 15 years for chilled product.

News on the progress of the Australian-Korea trade agreement has been scarce and at present the US holds a 5.3pc tariff advantage over Australia. This will increase to 8 pc by January 1, 2015, if our industry and government don't ratify our agreement before the end of this year. The sliding live export price situation has possibly bottomed out at around \$1.45/kg live weight (Karumba) for steers, \$1.30 heifers and \$1.10 cows, with reasonable demand from all markets. As the supply of suitable boat cattle tightens, we should see upward pressure on prices. Indonesia has announced third-quarter quotas for light and heavy cattle, which is reassuring. The recent presidential election could give some grounds for concern until more is known of the policies of the successful candidate.

On the domestic market, the only good news is the quickly developing success of the newly launched Pasturefed Cattle Assurance System (PCAS). Teys Australia and Woolworths have formed an agreement to get the clean, green PCAS product out into the Australian marketplace.

Teys Australia are offering forward contracts to producers for several months in advance, and the September grid for PCAS cattle is \$4.30/kg at Teys abattoirs. Teys Australia has also announced that, starting in October 2014, they will be paying a 10 cent premium for cull cows and bulls from PCAS certified properties. Feedlots have been very busy, with substantial activity being driven by the dry seasonal conditions. The Australian Lot Feeders Association report states that numbers for March-April 2014, 873,000 head, has been the highest for many years. However, profitability of feeding is still tight with high feed prices.

The EU market is our highest average export price destination at \$9.80/kg, with Australia supplying both grass and grain fed product. Australia shares an allocated quota for the EU market with the US, New Zealand, Canada and Uruguay. Over the past financial year Australia has managed to increase its share of the grainfed quota from 8700 tonnes to 13,000 tonnes, while the total EU grainfed quota is only 48,200 tonnes.

Meat and Livestock Australia has recently appointed Richard Norton as the new managing director. He replaces Scott Hansen. Mr Norton comes from senior executive positions with Landmark and Ruralco, with experience also at Toll, Woolworths and Coca-Cola.

LIVE EXPORT

The live cattle trade has had a bumper run since the Indonesian market turnaround. Light type (280-350kg) and slaughter weight cattle have been in good demand. The top four export destinations so far this year has been Indonesia, Vietnam, China and Israel. The live trade is heading for a bit over a million head exported this year if the cattle supply holds up. Other high volume years include 2002 when 971,000 head were exported; 2009-954,000 head and 1997-948,000 head were sold. Indonesian third-quarter quotas for boat cattle from Australia have been announced at 167,000 head. This is broken down to 133,000 feeder types and 34,000 head suitable for slaughter.

Prices ex Townsville for delivery in early July, 2014:

- Indonesia: 280-400kg steers - \$1.55/kg 280-350kg heifers - \$1.30/kg
- Heavier types for Vietnam: 400-650kg steers - \$1.55/kg bulls to 650kg - \$1.45/kg live.

UNITED STATES

The ongoing drought in the US has reduced their beef herd numbers to levels not seen since 1952 (down to about 87.7million head).

The reduction in herd numbers has pushed their cattle prices to record levels. This has also boosted Australia's exports to the US which, for the 2013/14 financial year just ended, has been the highest volume for at least six years at 265,920 tonnes. Grinding beef prices for Australian exporters is up to A\$5/kg and demand is strong.

CHINA

In September 2013, the Chinese suspended all chilled beef imports and would only accept frozen product from Australia, New Zealand, Uruguay and Paraguay. As of July 2014, 10 Australian exporters have been given partial market access for chilled beef on a six month trial basis. This will allow high quality-value cuts suitable for the upper end food service trade to be exported again. The trade in frozen quarters to China has also been growing and, with their lower cost structures, will likely continue to expand. Hormone growth promotants (HGP) have been detected in some of our beef exports to China and our industry has moved quickly to provide assurances on screening protocols.

HGPs are becoming an issue with many of our overseas markets with the recent detection and subsequent banning of our beef products from Russia.

The Australian beef industry needs to have fail-safe systems in place throughout the supply chain to avoid these incidents to maintain our clean green image and market access.

INDIA

India has progressed from being a small beef exporter on the world scene with buffalo meat up until about 2010. Since then, India has rapidly expanded to become the biggest beef exporter for 2013, exporting 1.56 million tonnes.

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Satellite hook-up for the bush – a new option



If you urgently need to improve the internet on your remote property, then hurry and apply to the new NBN Satellite Support (NSS) scheme. It is a totally new and cost effective internet solution on offer to properties in hard to reach rural areas.

The program has only 9000 places and is the last stop-gap satellite service on offer until NBN activates their final satellite solution, the 'Long Term Satellite Service' (LTSS) in late 2015.

One of the features of this program is that you are able to apply for separate internet accounts for each permanent staff house. So if you have several homes on your property, why not hook up each house to its own internet connection?

The eligibility criteria are quite strict and a little complicated and have turned people off applying in the past.

DAFF senior industry development officer JoAnn Resing will hold hands-on, coaching workshops for producers in the Flinders and Gilbert catchments to help them get the internet they need to make the most of irrigated agriculture opportunities.

During these free workshops, participants will prepare their application and then actually complete their application process over the phone.

Done and dusted by the time you leave, all you then have to do is wait for your approval letter and sign up for a plan.

For information on the new service, go to www.nbnco.com.au/connect-home-or-business/information-for-home/satellite.html

For a list of the participating Internet Service providers to access pricing and plans, go to <http://www.nbnco.com.au/connect-home-or-business/information-for-home/satellite/satellite-service-providers.html>

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PERFORMANCE FEEDS





Spyglass keeps eye on pasture quality

NIRS technology in action

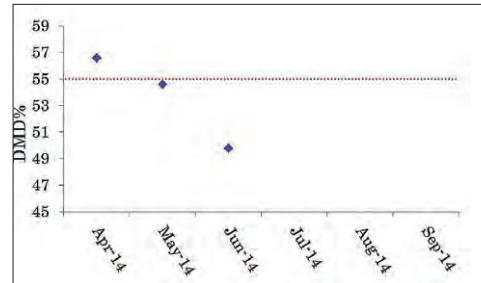
CHARTERS Towers FutureBeef extension officers are currently undertaking monthly faecal sampling across numerous mobs of cattle at the Spyglass Beef Research Facility.

This is being carried out as part of an ongoing project to assess the diet quality of pastures and is being measured with faecal Near Infrared Reflectance Spectroscopy (NIRS) technology. Faecal NIRS will provide information on the current nutritional status of pasture being grazed. The results provide information on the main building blocks of nutrition: protein and energy. Phosphorous can also be assessed using a different test.

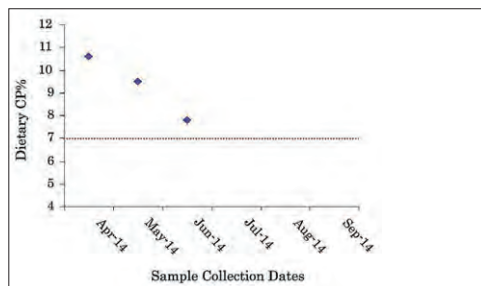
2014 SEASON AT SPYGLASS:

There was a significant break in season at Spyglass in November and early December 2013. Benefits from the early break were short lived as an extended period of high temperatures and no rainfall followed throughout late December 2013 into early January 2014. Good rain was recorded in February however, little follow-up was received throughout March or April 2014.

The dry matter digestibility (DMD) and dietary crude protein (CP) results have been combined and



Graph 1. Dry Matter Digestibility at Spyglass from April to June 2014. The dashed line is a rough guide of 55 pc DMD to indicate adequate energy for a lactating breeder to maintain condition.



Graph 2. Dietary crude protein at Spyglass from April to June 2014. The dashed line is an approximate threshold of seven pc Dietary CP required by a lactating breeder for maintenance.

averaged from two mobs of cattle in two paddocks.

Both consist mostly of native grass pastures with the main pasture species being blackspear grass, Bluegrass species, wiregrass species and Indian couch. A high presence of browse species is dominant across both paddocks with patches of seca stylo.

The predominant land types across both paddocks are narrowleaf ironbark on deep and shallow soils with smaller pockets of loamy alluvial country.

DRY MATTER DIGESTIBILITY (DMD):

Dry matter digestibility is an indicator of the energy available in a diet and is expressed as the percentage of feed consumed that is digested by the animal. The digestibility of tropical grasses declines rapidly as the pasture matures and begins to hay off. At its most digestible state during early, rapid growth the DMD of tropical grasses can reach about 60-70 per cent and will typically fall to below 50pc as the plants condition deteriorates.

The digestibility of feed is an important consideration as it has a direct impact on intake and the rate of passage through the rumen. Feed intake is a critical factor that influences the level of nutrients supplied to the animal. The more digestible a feed is, the faster it will pass through the animal, meaning more can be consumed so more nutrients can be extracted. Graph one shows the decline in the DMD of pastures from April to June 2014. With reasonable rainfall received in February, pasture condition was good and digestibility was adequate in April.

In May and June, digestibility declined fairly significantly. As a rough guide we have used 55 per cent DMD to indicate adequate energy for a lactating breeder to maintain condition. Results above this line should be adequate and below the line, energy will most likely be deficient. This pattern is typical for the north and correcting for an energy deficiency through supplementation is generally very expensive; and mostly addressed when survival becomes an issue.

DIETARY CRUDE PROTEIN (CP)

Faecal NIRS technology also provides a prediction for dietary CP. As with energy, the ability of cattle on pasture to source sufficient amounts of crude protein is influenced by overall intake and the digestibility of the pasture. Protein is usually the first nutrient to begin limiting production once pasture begins to mature and decline in digestibility.

Graph two provides the results for dietary CP at Spyglass. Similar to the DMD in Graph one, a gradual decline can be noted from April to June. An approximate threshold figure of 7pc is used as a guide for the required dietary CP for the maintenance of a lactating breeder. From April to June dietary CP did not



Watch in the next edition of the NorthernMuster for an update on the changes in pasture diet quality at Spyglass throughout the year.

fall below seven pc despite the fact that DMD had fallen below 50pc. This may be attributed to the moderate to high dietary non-grass proportions of browse being consumed by the cattle, providing a higher predicted dietary CP percentage.

DIETARY NON-GRASS PROPORTIONS

Another attribute provided by faecal NIRS technology is a prediction for dietary non-grass proportions, or, how much of the diet is not grass. The non-grass proportion represents feeds such as top-feed, or browse, herbage and legumes.

The faecal NIRS predicted level of non-grass within the diet was around 22pc in April and reached 42pc in June. This indicates that as grass quality declined, the non-grass proportion of the diet increased.

The faecal NIRS analysis demonstrates a decline in dietary CP and DMD occurring throughout the dry season. This decline in CP and DMD is accompanied by an increase in the non-grass portion of the diet.

Results from faecal NIRS can be used to make informed, timely livestock management decisions such as when cattle may respond to supplementation.

Repeated sampling provides a good indication of how quickly the diet quality is deteriorating which is important for developing short term and long term nutritional management strategies.

We will continue to monitor the diet quality of pastures at Spyglass throughout the year and the results will be published in the next edition of the Northern Muster. If you are interested in carrying out sampling on your property contact commercial faecal NIRS analysis provider Symbio Alliance (07) 3340 5700 to receive a kit and get started.

If you would like further information about Faecal NIRS, contact your local DAFF beef extension officer.

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Bucks for Brains incentive available to beef producers

BSE payments

AN INCENTIVE payment of \$300 is available to cattle producers that have animals showing signs of the fatal disease, Bovine Spongiform Encephalopathy (BSE).

Along with the incentive payment, eligible producers will also receive subsidised veterinary examinations and full laboratory investigations of alternative diagnoses.

Veterinarians collecting samples for the 'Bucks for Brains' program will have funded opportunities to undertake investigations with new and existing clients.

They will also have access to incentive payments to help cover investigations, collecting and documenting submissions, and freight of samples to the laboratory. The full laboratory investigations available under this program assists veterinarians to provide a high quality service to their clients.

SIGNS OF BSE

Do your bit to help maintain Australia's favourable trading status by keeping a close eye on your animals for any signs of BSE. If you notice increased apprehension and nervousness in your cattle, a staggy gait, increased sensitivity to touch and sound or muscle tremors, act now. Cattle at least 30 months and less than nine years of age are eligible to participate in the Bucks for Brains program.

WHAT TO DO

If you think you have an eligible case, contact your private veterinarian or local Biosecurity Queensland veterinarian or inspector to have the case assessed.

Veterinarians are encouraged to familiarise themselves with the eligibility criteria for the Bucks for Brains program and to take up opportunities to submit eligible cases. Veterinarians are invited to visit www.daff.qld.gov.au for information on submitting samples and documentation to the Biosecurity Science Laboratory.

THE NATIONAL TSE SURVEILLANCE PROGRAM

The National TSE Surveillance Program helps demonstrate to trading partners and the World Organisation for Animal Health that Australia is free of transmissible spongiform encephalopathies (TSE), including BSE in cattle.

The occurrence of BSE here would also impact Australia's ability to trade so it is vital that Queensland continues to prove its BSE-free status to safeguard market access.

The surveillance program requires Queensland to collect and test brain samples from a targeted number of cattle each year and we need your help to meet this target.

The program also makes it possible to identify what disease cattle submitted may have been suffering from, and to prevent or treat those conditions in future.

The surveillance program is managed by Animal Health Australia and is implemented through state and territory animal health agencies.

For more information, visit www.daff.qld.gov.au or call 13 25 23.



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Supplementation in weaner feeding

Total diet on offer needs to be nutritionally balanced

Weight-gain objective

SUPPLEMENTATION is the most critical aspect of successful weaner management. Supplementation type should be based on weaner age and weight, which will determine nutrient requirements and intake levels.

The objective is that weaners gain weight. To achieve weight gains of 0.5kg/head/day the total weaner diet on offer needs to be nutritionally balanced, palatable, and digestible to satisfy required daily intake.

Supplements should be available to weaners as soon as they are drafted off their mothers.

Interruption to feed supply for weaners can compromise the weaner's immune system, precipitating coccidiosis. The best control of coccidiosis is to ensure adequate feed intake and growth of weaners. With proper management and nutrition, there is no growth disadvantage of small weaned calves compared to their similar unweaned counterparts of the same age.

KEY POINTS WHEN FEEDING WEANERS:

Weaners should have access to good quality hay in addition to the supplement while they are in the yards.

Good quality hay has a high proportion of leaf to stem, is green and sweet-smelling. Hay containing legume leaf is usually more nutritious and digestible than hay made from grass alone. Hay with too much legume (as in pure lucerne hay) often causes scouring in weaners. Hay should be clean and free of mould.

Be careful when purchasing hay from areas with widespread declared weeds. Weedy hay will be less nutritious (and a biosecurity risk).



Weaners should have access to good quality hay while they are in the yards – greenness and sweet smell indicate quality.

When reading the product label of calf meals/pellets, do not include urea in the calculation of crude protein. Young calves cannot utilise urea as their rumen is not fully developed.

Suitable protein sources for weaners include cotton seed meal and copra meal. Younger weaners may perform better on copra meal.

Segregating weaners by size reduces bullying and

allows all to get a fair share.

Feeding pellets or protein meals every third day (or twice a week) results in plenty of feed available on the day and reduces bullying.

Feed concentrate supplements before putting hay out so the weaners eat the concentrate first.

Do not change the amount or type of feed suddenly. This gives the rumen microorganisms a chance to adjust. Include Rumensin (active ingredient monensin) in weaner rations to achieve an intake of 25mg/head/day.

Rumensin may also help control a coccidiosis outbreak. Care should be exercised as overdosing is quite toxic. Small amounts in horses can be lethal.

Urea must be thoroughly dissolved into molasses supplements to avoid toxicity. Mechanical mixes should be used. Take particular care with granulated urea.

Calves of <100 kg liveweight must have continual access to concentrate supplements.

Monitor intakes of weaners to ensure adequate intakes of supplement are achieved.

Phosphorus should be included in supplements fed to weaners on phosphorus-deficient country in both the wet and the dry seasons.

When feeding dry licks and blocks to weaners over 150kg, the lick should supply 75g of protein per head per day. If weaners are not eating enough, protein meal can be added to improve palatability of the lick.

Proprietary mixes should be fed according to manufacturer's recommendations.

For more information visit www.futurebeef.com.au and search "weaner supplements"



Segregating weaners by size allows for more cost-effective supplementation.

Feed interruption compromises calf immune systems

PWD management

POST-WEANING diarrhoea (PWD), or coccidiosis, is a very common condition in weaned calves. It is mainly caused by two coccidia (*Eimeria bovis* and *E. zuernii*) that normally inhabit the intestinal tract.

Cattle contract these organisms from herd mates within a day of birth.

Under normal circumstances, coccidia cause no significant problems as cattle develop an immunity that keeps the coccidia populations suppressed.

However, if the immune system in the calf's gut is compromised, the parasite can reproduce rapidly and cause substantial damage to the intestinal lining.

This is expressed as bloody or black diarrhoea. Weaning is a very stressful time for a calf and this stress can compromise the immune system, allowing coccidia to build up.

The immune system in the intestinal lining requires a constant flow of digesta. Interrupting the feed supply to weaned calves for as little as one day can compromise the gut's immune system and precipitate coccidiosis.

Usually clinical disease will become apparent about four weeks after the time the immune system was suppressed.

The parasite usually damages its own environment to the extent that it no longer has a suitable environment in which to successfully reproduce. At this point intestinal populations of coccidia decline rapidly and the disease regresses.

In other words; the disease is typically self-limiting, but unfortunately not before damage has been done.

If an affected calf is not given drugs to control the parasite, it may continue to suffer chronic intestinal damage from coccidia.

If left untreated, the intestine can be scarred, which can affect long-term growth.

These strategies for managing PWD are recommended:

- Ensure calves have access to nutritious palatable feedstuffs to satisfy voluntary feed intake from the point of weaning. This can be done by putting good quality hay in the weaning yard on the day the calf is weaned.
- Reduce the stress of weaning as much as possible. Give calves access to warm dry yards with shade and a plentiful supply of clean water.
- Include a coccidiostat in the calves' rations. Rumensin (active ingredient monensin) is a commercially available product commonly used in calf rations. It should be included to achieve an intake of approximately 25mg/head/day. Rumensin may also help control an outbreak of PWD. Take care in using this product: over-dosing in cattle is quite toxic, and in horses even small amounts can be lethal.
- In calves that suffer severe and or chronic PWD, treat individually with Scourban (which cattle vets can prescribe), a product that includes a coccidiostat, an antibiotic and anti-diarrhoeal powders.

For information visit the www.futurebeef.com.au site and search for "post weaning"



Inclusion of a coccidiostat, for example, monensin, is recommended in fortified molasses mixes to help control PWD.

Handy guide to farming assistance programs

Bush bible

WITH many rural families and communities affected by the ongoing dry season, the Suncare Community Services Group and the Rural Financial Counselling Service (RFCS) have put together the 'Bush Bible'.

This publication is a guide to the drought assistance schemes and other support programs available for farm families in drought-affected areas of Queensland.

The key aim is to connect graziers and rural communities with support services they may need.

There are many different drought support programs from a number of organisations and it can be confusing to know what is available, and where.

The 'Bush Bible' puts it all in one place.

You can find this handy document

at: www.futurebeef.com.au/bush-bible-for-western-queensland/ or call DAFF on 13 25 23 to be referred to a FutureBeef officer.

You can also find useful drought information, tools, recorded webinars, and events on the FutureBeef website, a one-stop shop for beef producers.



Increasing productivity to p

Mr Surprise trial varieties demonstrate psyllid-resistance

Leucaena

Northern beef producers need to increase their productivity if they are to stay viable in the current economic climate.

Increasing annual live weight gain and reducing age of turn off through the use of improved pastures, such as leucaena, are achievable targets on properties with suitable soils and rainfall.

The introduction and successful establishment of leucaena can potentially double annual live weight gains, giving the producer more options with herd management and marketing.

Currently, the adoption of leucaena production systems is very low because of the impact that psyllid insect attacks have on the productivity of the pasture.

Establishment costs, the potential impact of frost and low confidence levels in plant establishment are also factors that have contributed to the low adoption of leucaena.

Meat and Livestock Australia in partnership with DAFF and the Northern Gulf Resource Management Group have established a producer demonstration site at Whitewater Station, Mt Surprise.

The demonstration consists of a 40-hectare leucaena establishment site.

The aim of the demonstration site is to improve industry understanding of the establishment methods, costs, management requirements and potential productivity and profitability gains associated with leucaena production systems.

In conjunction with the 40-hectare demonstration site, a one-hectare plot was also established on Whitewater Station with four new promising leucaena breeding lines.

These four lines were identified by the University of Queensland as showing good psyllid tolerance.

The one-hectare plot also has commercial leucaena varieties, Wondergraze and Cunningham, established to assess each varieties psyllid tolerance and palatability in the field.



MLA in partnership with DAFF and NGRMG has established a producer demonstration site at Whitewater Station to improve industry understanding of leucaena production systems.



Four new promising leucaena breeding lines identified as being psyllid resistant are being tested at the demonstration site.

The development of psyllid tolerant hybrids is based on a back-cross between the palatable leucaena leucocephala and the unpalatable but psyllid resistant leucaena pallida.

The demonstration so far has shown promising

results in terms of psyllid damage. Grazing trials are due to commence at the demonstration site on replicated plots.

The four new breeding lines have also been established for seed production at the DAFF

Walkamin Research Facility on the Atherton Tablelands.

Mark Keating
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Stocking rate key to establishing pasture mix with Indian couch

Indian couch

IN this final part of the trilogy on Indian couch, the role of sown pastures is considered. Previous articles on Indian couch in the December 2013 and April 2014 editions of the *Northern muster* covered The Good, The Bad & The Ugly of Indian Couch and An Ongoing Pain in the Grass – Managing for Recovery.

Where paddocks appear to be 100 per cent Indian couch, there are often a few 3P pasture plants in protected locations such as in clumps of currant bush, areas remote from water in large paddocks and in steep areas that cattle do not graze.

Colonisation from these areas will be slow. To achieve a more rapid recovery, use sown species to inject 3P species into the pasture to improve carrying capacity.

However, recognise that sown pastures are not bullet-proof and they may struggle to establish in a dense stand of Indian couch in good wet seasons.

There is ample evidence in Indian couch dominant paddocks that are adjacent to fenced road reserves containing healthy stands of stylos and buffel grass that these 3P species are not moving out of the road reserve because paddock stocking rates are too heavy.

Back off on the stocking rates after pasture sowing. Wet season spell and maintain appropriate stocking rates after the pasture has established. There are examples of well-established sown pastures where heavy grazing resulted in a slide back to Indian couch dominance - a wasted investment.

Wet season spelling will also accelerate the rate of recovery with sown pastures – particularly in below



A pure stand of Indian couch in the foreground and Seca stylo and urochloa through the fence. Heavy grazing pressure is preventing colonisation by the sown species into the Indian couch.



A pure stand of Indian couch in the foreground and buffel grass through the fence. Heavy grazing pressure is preventing colonisation by the buffel into the Indian couch. Sown pastures will not establish without light stocking rates and wet season spelling.

average wet seasons when competition from Indian couch will be reduced. Ironically it may be necessary to heavily graze the Indian couch (or even burn it) prior to sowing to further reduce the competition and give the sown pasture species a chance.

In smaller paddocks, such as a weaner paddock, it is worth considering cultivation to create a seedbed which will also give the sown species a greater chance of establishment.

Avoid using fire after legumes are sown until the

soil seed bank is well established (five to 10 years) and spell in wet seasons post seeding. This should then be followed by moderate stocking rates based on a forage budget.

WHAT PASTURE SPECIES TO SOW

For the lighter and medium textured soils (sands, loams and lighter non-cracking clays) stylos are still the best option and they stack up well economically. Avoid Wynn cassia as it is not very palatable. Always include a small quantity of sown grass seed in the mix.

On the lighter textured soils, buffel grass is ideal where soil fertility is moderate to high; urochloa is better adapted where soil fertility is marginal to low. Obtain a soil fertility analysis to reduce the chances of any surprises that may affect germination and pasture establishment.

For the heavy cracking clays there are many potential sown species, but most of them are unproven in the north. Even those species that

● To facing page

Promote economic viability

Trials testing prospects for new tropical grasses and legumes



Legumes at the Ravenswood duplex site during March 2014, following dry sowing in December.



Distinct differences seen in hay-off time between sown grass and surrounding native pasture in early June, on duplex soil site near Georgetown.



Varieties established at the Mt Surprise basalt soil site in March, 2014.



The undeveloped duplex soil site near Ravenswood (November, 2013).

Sown pastures

A FIVE-year Meat and Livestock Australia co-funded project to test new pasture plants in north Queensland is being run by DAFF and landholders at seven pasture evaluation sites over the 2013/14 wet season. Five more sites will be planted this coming season.

The project will assess new tropical pasture grasses and legumes developed over the past 15 years. Their productivity under grazing will be compared using older varieties (where present) as a benchmark. The research team aims to provide independent productivity information as well as species, soil, rainfall and temperature guidelines for beef producers.

Some 30 legumes and 30 grasses will be grown on more productive soils with suitable rainfall across north and central Queensland sites. Better quality soils have been targeted as trial sites as investment in sown pastures is usually best directed to more fertile soils.

Sown pasture is a popular way to improve feed quality and quantity on properties. Improved pastures will lift annual liveweight gains by 30kg to 100kg.

On lighter country in north Queensland stylo

legumes oversown into native grasslands increase carrying capacity and annual liveweight gain.

Leucaena and native pasture systems on north Queensland basalts will increase annual liveweight gains from 120 kg/head to 240 kg/head and stocking rates from 1 AE:5 ha to 1 AE:3.2 ha.

Over the past 20 years there has been more recognition of developing grasses with higher productivity and feed value and improving grass-pasture productivity by introducing legumes. Many new species show promise for the north and will be compared in a meaningful and independent way through this project. Some older, high-performing pasture plants will also be assessed in north Queensland.

The work in north Queensland occurs in a broad arc from Normanton (grey clays), to Georgetown (duplex and alluvial soils) and Mt Surprise (basaltic soil) and down to Charters Towers (alluvial and red earth soils) and Ravenswood (duplex). There is also a site near Richmond (cracking clay) and three central Queensland sites (duplex and clay-loam soils).

The research team has included as wide a range of grasses and legumes as possible, targeting those

adapted to dry conditions and palatable to cattle. These include commercially available varieties, those in later stages of development and some recently identified promising types from seed companies, universities and state government researchers.

The pasture plants will be assessed under dry-season grazing for productivity, persistence, length of green-growth into the dry season, flowering/seeding timetables and palatability.

The economic costs and benefits of improved

PROGRESS TO DATE

NINE demonstration sites have been identified, described and fenced (to exclude kangaroos) from Normanton to Ravenswood. The three central Queensland sites are to be prepared for sowing this coming wet season.

A late break to the 2013-14 wet season delayed sowing at all sites. Three sites were dry sown during December as access was questionable once the monsoon trough reached the area.

Four sites were sown after suitable rainfall, but these were late for optimal sowing. Two were not sown because of insufficient rainfall to prepare and sow the sites.

The first-year sites have been highly successful despite the difficult season. Establishment was excellent at four (Georgetown, Mt Surprise, Charters Towers and Ravenswood) of the seven sites but extremely low rainfall in the western sites resulted in first year failures – these need to be re-sown next year. The first wet-season measurements have been completed and the sites will be grazed over the next month or so. Some grasses and legumes are already performing much better than the 'industry standards' for each area, growing for longer into the dry season and producing more wet-season biomass.

Performance following dry-season grazing and subsequent regrowth over the next wet season needs to be assessed, but the initial results are extremely promising.

pasture systems will be estimated and ideal varieties for each land type identified. Large scale grazing trial and animal production studies are also planned to refine economic costs and benefits.

The project team includes DAFF pasture and seed researchers from Mareeba working with DAFF Futurebeef extension staff from Mareeba, Richmond, Cloncurry, Roma and Rockhampton. All sites are on commercial beef properties, except one - the DAFF Spyglass Research Facility near Charters Towers. There has been excellent on-ground help and support by producers and DAFF staff across the north.

Kendrick Cox
Senior scientist
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Opportunities for graziers interested in setting up demonstration site

● From facing page

establish may not persist, particularly the twining legumes.

For anyone wishing to trial an area, consider the following pasture species:

- Legumes – Caatinga stylos (Unica and Primar), butterfly pea (milgara pea), burgundy bean, siratro, Progardes™ (Desmanthus), lablab, Bundy and Cavalcade centro.
- Grasses – Floren bluegrass, urochloa, creeping blue grass, bambatsi panic (Makarikari grass), Callide Rhodes grass, Premier digit grass, purple pigeon grass, briacaria hybrids (Mulato I & II) & silk sorghum.

SOWING RATES

For lighter soils sow a mixture of 65 per cent seca stylo, 20pc verano stylo, 10pc siran stylo and 5pc grass at a combined rate of 1.0 to 3.0kg/ha for bare seed (double the rate for coated seed).

In cracking clay soils dominated by Indian couch (or angleton or sheda grass), i.e. land condition C, sow a mixture of 50pc Caatinga stylos, 20pc butterfly pea and 30pc other legumes such as burgundy bean, siratro, Progardes™ (Desmanthus), lablab, Bundy & Cavalcade centro, at 2.0 to 4.0kg/ha for bare seed (double the rate for coated seed).

In cracking clay soils where the ground is bare and devoid of pasture, i.e. land condition D, sow a mixture

of 40pc Caatinga stylos, 10pc butterfly pea, 20pc other legumes (as above), 15pc creeping bluegrass and 15pc other suitable grasses at the same rates as for the lighter soils. Usually the higher the seeding rate, the more rapid the establishment of a pasture.

DEMONSTRATION SITES

The Lyons family at Junction Creek have agreed to host a demonstration site on recovering black basalt country that is in poor (C-D) condition. This is a joint project between DAFF Charters Towers and the Dalrymple Landcare Committee. Once the pasture is established, a field day will be held on-site.

There are opportunities for graziers interested in

setting up a producer demonstration site (PDS) to evaluate management options for issues in their area.

An example one current potential project is looking at is Indian couch dominance on red basalt country at a commercial paddock scale.

If you are interested in hosting a PDS and have a group of like minded graziers in your area, please contact any of the beef extension officers in Charters Towers, phone (07) 4761 5150.

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FutureBeef Team, Charters Towers
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Clermont Cattlemen's Challenge

THE 2013/14 Clermont Cattlemen's Challenge wrapped up at the Clermont Show in May.

The Challenge is a popular competition that showcases the district's beef industry and is comprised of five official classes and three additional classes, as follows:

OFFICIAL CLASSES

- Weaner – pen of five steers most suitable to grow for the 100 day grain fed market;
● Grainfed steer judging – pen of three grainfed steers most suitable for the 100 day grain fed market;
● Carcase competition – single carcase most suitable for the 100 day grainfed market;
● Weight gain – pen of three steers with the highest overall weight gain;
● Eating quality – taste test competition (judges' choice).

ADDITIONAL CLASSES:

- Highest weight gain on grass (nine months)
● Highest weight gain on grain (100 days)
● Eating quality – taste test competition (consumers' choice).

Within each official class, five points are allocated to the exhibitor that places first, four points for second, three points for third, two points for fourth, and one point for fifth.

The points are totalled and the exhibitor that gains the highest point score is crowned the 'Clermont Challenge Cattle King'. No points are allocated for the three additional classes, but prizes are awarded to the winners of these classes.

CHALLENGE ACTIVITIES

There were a total of 85 steers in the 2013/14 Clermont Cattlemen's Challenge – 17 exhibitors each entering five steers.

Weaner judging (official class): Judging took place at the Clermont show in May 2013. First place was awarded to Greg and Alicia Magee of St Omer, second to Laurel Hills and third to Trelwoney. The average weight of the weaner steers was 294kg (range 230-355kg).

Highest weight gain on grass (additional class): The steers were agisted at Wyena, Clermont, for the grass phase of the Challenge from May 2013 to February 2014.

The steers were weighed intermittently and diet quality assessed monthly with Faecal NIRS. Diet quality was high over the grass phase with Dry Matter Digestibility (DMD) ranging from 56 to 65 per cent, and Crude Protein (CP) 8.7 to 9.6 pc.

Average liveweight gain of the 85 steers was 145kg or 0.57 kg/hd/day (Table 1). Steers entered by Jeff and Sarah Cook of Etonvale had the highest weight gain with a total gain of 184kg or 0.72 kg/hd/day.

These were followed by Tayglen (175kg or 0.68 kg/hd/day) and Merrigang (173kg, 0.68 kg/hd/day). The highest individual steer gain was 207kg (0.81kg/day), and the lowest 89kg (0.35 kg/day).

HIGHEST WEIGHT GAIN ON GRAIN (ADDITIONAL CLASS)

Steers were inducted into Paringa Feedlot, Capella, February 2014, for 100 days on feed. The average weight of the steers on entry was 439kg (range 345 to 532kg). The steers were weighed in May 2014 after 98 days on feed. The average liveweight gain of the steers on grain was 214kg (2.18 kg/hd/day). David and Kate Moller of Trelawney, and Peter Turner of Carrie Downs, had the highest weight gain on grain, with a total gain of 239kg (2.44 kg/hd/day). These were followed by Etonvale with 237kg (2.42 kg/hd/day), and Old Banchory/Clydevale with 232kg (2.37 kg/hd/day). The highest individual steer gained 296kg (3.02 kg/day) and the lowest gaining 116kg (1.18 kg/day).

PARINGA FEEDLOT FIELD DAY

The steers were weighed at a field day at Paringa Feedlot on 16 May 2014 with around 50 locals, as well as two school groups from Capella and Clermont

Table 1. Liveweight gain summary for 2013/14 Clermont Cattlemen's Challenge. Table with columns for Liveweight gain (kg) and Average daily liveweight gain (kg/hd/day) across Grass and Grain phases.

a Weight at Clermont Show after overnight wet curfew
b Weight at Wyena after overnight wet curfew
c Weight after 5 days at Paringa Feedlot on hay and grain ration, weighed after 4 hour curfew
d Weight Paringa after overnight wet curfew

Industry showcase

Crowds approve as beef entries pass the tongue-tip test



Exhibitors and the general public had an opportunity to participate in the taste testing of the Clermont Show Cattlemen's Challenge.

attending. Each exhibitor selected one steer from their group for the carcase and taste test phases and, three steers each to be judged at the Clermont Show.

Presentations were delivered after a barbecue lunch from guest speakers Emma Hegarty, FutureBeef Team, Cloncurry, and Joe Miller, Junior Research Fellow at the University of New England.

Ms Hegarty provided an overview of the Richmond, McKinlay and Flinders Beef Challenges, recent challenge results, and some technologies being used to collect data. Mr Miller provided an insight into some supplementation producer demonstration sites that are currently trialling remote livestock management technologies.

CARCASE COMPETITION (OFFICIAL CLASS)

The 17 steers selected for the carcase competition were transported to the JBS Swift Dinmore plant on May 18, 2014, and killed the following morning. The bodies were judged in accordance to the challenge carcase specifications, for nine carcase attributes (Table 2). The carcase competition was very tight with just four points separating the top three placings. The winning carcase exhibited by Jeff and Sarah Cook of Etonvale, scored 96 out of a possible 110 points. This was followed by Tayglen on 95 points, and St Omer with 92 points. The average carcase score was 84/110.

Eighty-two percent of steers were milk tooth. Two steers had two teeth and one steer had four teeth. Average carcase weight was 342 kg. Only 18 pc of

Table 2: Summary of 2013/14 Clermont Cattlemen's Challenge Carcase competition results. Table with columns for Carcase Comp Specs, Optimum Specs (% achieved), Below Specs (% carcasses), and Above Specs (% carcasses).

Table 2: Summary of 2013/14 Clermont Cattlemen's Challenge Carcase competition results.

The carcase competition was very tight with just four points separating the top three placings.

carcases were in the optimum carcase weight range of 300 to 340 kg. One carcase weighed less than 300 kg, with the remainder heavier than 340 kg.

Less than half the carcasses had the optimum P8 fat depth of 10 to 12 mm. However, 76 pc of carcasses had an eye muscle area (EMA) of 90 cm2 or greater. All carcasses met the fat colour score specifications.

No carcasses achieved the optimum marbling score of five. Marbling is intramuscular fat that is deposited between the muscle fibres of the longissimus dorsi muscle (rib eye and strip loin cuts). Marbling is positively associated with eating quality and is the last tissue to be deposited in a beast. Marbling is well known to occur in certain breeds, such as the Wagyu, and is less likely to occur in heavily muscled, lean breeds of cattle.

Ninety-four percent of carcasses had an Ausmeat meat score colour in the optimum range of 1B to 1C with only one dark cutter. One carcase achieved optimum specifications for fat distribution. Even fat cover is very important when it comes to chilling carcasses. Without enough fat, or with uneven fat cover, the carcase can be affected by cold shortening which has a negative impact on eating quality.

Market suitability is an assessment of the overall suitability and quality of the carcase as a 100-day grain fed product. Market suitability takes into account all aforementioned carcase attributes. Two carcasses scored less than 10 points out of a possible 20. Twelve carcasses scored between 10 and 14. Three carcasses were in the range 15-18.

TASTE TEST COMPETITION (OFFICIAL CLASS)

The taste test competition was held at the Clermont

Show. Cube rolls from the carcasses judged in the carcase competition were used for the taste test. To ensure all exhibitors had equal opportunity to be judged without bias, the cube rolls were randomly assigned a number between 1 and 17, and the exhibitors' names excluded from the competition.

A panel of four judges consisted of Isaac Regional Mayor, Anne Baker; ANZ Agribusiness Manager, (Townsville) Jamie Walker; Clermont beef producer Bill Moller; and Belyando Produce owner Daryl Manely. The cube rolls were sliced into 2 cm thick steaks and cooked for 3.5 minutes on a Silex grill heated to 200oC. The steaks were rested for 2 minutes before being cut into 2 cm cubes by professional butchers, and served.

The judges provided an eating quality score out of 100 based on their perception of tenderness, juiciness, flavour and overall liking. Michael and Tracy Borg of Calveston won the highest eating quality score (79.8 pc). This was closely followed by Wyena (79.3 pc) and Etonvale (77.0 pc). The average eating quality score for the entries was 69.9 pc.

Exhibitors and the public also had the opportunity to participate in the taste testing as "consumers". Participants scored each entry on a 1 to 10 scale using a live polling system, which displayed the taste test results within minutes of the meat being consumed. Everyone had a great time guessing which steak belonged to which exhibitor, and watching the positions of the meat change on the leader board as scoring progressed throughout the event.

Carl and Andrea Moller of Springvale won the highest eating quality score from the consumers (73.2 pc). Wyena (73.0 pc) and Calveston (72.8 pc) followed. The average eating quality score from the consumers was 61.4 pc.

OVERALL WEIGHT GAIN (OFFICIAL CLASS)

The steers selected for judging were transported to the Clermont show on 25 May 2014. After an overnight wet curfew the steers were weighed. Average weight of the exhibitors' pen of steers was 659 kg (range 607 to 723 kg). Highest overall weight gain was won by Jeff & Sarah Cook of Etonvale for the second year in a row with an average weight gain of 440 kg (0.60 kg/hd/day) over the 364 days of the Challenge. Second place went to Parnu (420 kg gain; 0.58 kg/hd/day) and Trelawney was third (400 kg gain; 0.58 kg/hd/day).

GRAIN FED STEER JUDGING (OFFICIAL CLASS)

The steers were judged as a pen of 3 steers most suitable for the 100 day grain fed market. First place was awarded to Ross and Sam Martyn of Old Banchory, second place to Laurel Hills and third place to Tayglen. Overall Clermont Show Cattlemen's Challenge competition results: Jeff and Sarah Cook of Etonvale, Clermont, were crowned the overall Clermont Show Challenge Cattle King and Queen. Jeff and Sarah gained 15 out of a possible 25 points, from the 5 official classes.

Lauren Williams and Joanna Robertson FutureBeef Team, Mackay and Charters Towers Lauren.Williams@daff.qld.gov.au Joanna.Robertson@daff.qld.gov.au



Table with columns for Class, 1st, 2nd, 3rd. Rows include Pen of 5 steers best suited to grow for the 100 day grain fed market, Pen of 3 steers with the highest weight overall weight gain, Single carcass most suited to 100 day grain fed market, Taste Test, Pen of 3 steers most suited to 100 day grain fed market, Special Prizes, Highest weight gain on grass, Highest weight gain on grain, Consumers choice- taste test.

Results summary for the 2013/14 Clermont Cattlemen's Challenge.

Carcase sorting system

BY December 2014, producers may notice the inclusion of an MSA index on MSA feedback sheets from 'optimised' processors.

All MSA processors will implement a new beef carcass sorting system called MSA Optimisation with a new MSA index also becoming available to producers.

The MSA index is a single value between 30 and 80 applied to a carcass to represent the potential eating quality value of that carcass. Higher index values indicate higher eating quality. The MSA index is intended to provide more meaningful eating quality feedback to producers and may be implemented within processor specifications. This is a standard national measurement, consistent across all processors, geographic regions and time, and is calculated independent of any processing influences.

"Both MSA optimisation and the MSA index are aimed at enhancing the value of MSA to the supply chain," MSA manager Richard Lower said.

Coinciding with the release of these two initiatives, a new MSA member feedback tool, myMSA has

MSA Optimisation here by Christmas



LEFT: Marbling score being assessed on a carcass as part of the MSA grading process.

also been developed.

myMSA will provide MSA producers with easily accessible feedback reports as well as the ability to do more advanced customised reporting. myMSA will also provide producers with MSA index values for their cattle from the past three years and will provide instant access to MSA feedback following carcass grading at

optimised abattoirs.

Richard said MSA Optimisation will replace the standardised national MSA boning groups (1 - 18) which have been used since MLA's inception to collate carcasses of similar eating qualities. MSA Optimisation will provide a more flexible and efficient system, customised to meet the needs of individual processors.

Currently, MSA boning groups require the eating quality calculation of all 136 cut x cook method combinations predicted by the MSA model. These can be considered as hurdles that a carcass must jump over to achieve a MSA boning group. This is regardless of whether the processor packs and markets

all of these products.

"MSA optimisation allows the processors and brand owners to focus on the cuts that are most important to their markets or customers and determine the cut x cook 'hurdles' they want to use in a carcass sorting system," Richard said. "This may also provide benefits such as greater extraction in volume of some cuts, reduced variability in brands and more efficient segregation of different eating qualities."

The MSA grading standards and the underpinning science of the MSA model have not changed for MSA Optimisation.

MSA Optimisation also does not require any additional requirements for livestock consignment and the current MSA minimum requirements remain the same, in that carcasses must have:

- Minimum 3mm ribfat and adequate fat distribution over all major primals
- Meat pH less than 5.71
- Meat colour 1B - 3

More information about the MSA index can be found in a new tips and tools available to download at www.mla.com.au/msa



Getting down to beef business

High school students enter competition for the first time

Malanda Carcass Competition

THE Malanda Carcass Competition this year was again held at the Byrnes family's, Rocky Creek Abattoir, near Tolga on the Atherton Tableland.

Morganbury Meats principal Chris Greenwood, purchases all animals entered and sets out three classes for the producer competition, which reflects the ideal animals required for his various markets across North Queensland. All animals must be milk tooth, pasture fed, HGP and antibiotic free.

This year the Agricultural students from Malanda and Atherton State High Schools entered animals into the carcass competition. Even though they didn't pick up any ribbons, it was a good educational opportunity for many of them to tie in the live visual assessment to a carcass and its market suitability. This is a first for the students as Malanda, Atherton and Ravenshoe High School's Agricultural sections have been keen led-steer competitors for many years.

It's also a great credit to the agricultural teachers led by Dave Kilpatrick at Malanda, as many of the events and training activities are on weekends and after hours. It's very heartening to see the students progressing to the business end of the beef industry.

There was a good turnout of students and producers at Rocky Creek abattoir to inspect their animals after they had been judged. The bodies were judged by the DAFF FutureBeef Team led by Emma Hegarty, with assistance from Rob Pagano, from the



Malanda Beef Plan Group.

Class One - male or female, milk fed off the cow, dressing between 130-170kg. Won by Malanda beef and pig producer, Shane Beattie, with a red angus limo-cross calf. Local vet, Bill Tranter, placed second, and Alan Booth third.

Class Two - male or female, dressed weight 210-250kg. Tarzali beef producers Warren and Lyn Hosie took out Class Two with a droughtmaster limo-cross heifer. The same animal was also best carcass of the 2014 competition. Alan Booth placed second, and

Alex Irvine third.

Class Three - male or female, dressed weight 270-310kg. A Euro-cross animal owned by leading Tarzali beef fattener Bruce Carcary won Class Three. Alan Stokes placed second and Matt Frazer third.

This competition has been running for many years and producers have very quickly fine-tuned their production systems to produce the ideal animal for this competition.

This was again evident this year with the points all being very close and there was many excellent

	No. head	Rib Fat	P8 Fat	Total HSCW	pH	Marble	EMA	Oss Score
Class 1	10	2.8	3	153.5	5.6	183	56.9	227
Class 2	18	6.7	7.9	237.5	5.5	262	73.5	153
Class 3	10	8.5	8.7	292.5	5.6	297	81.1	149

ABOVE: Average carcass attributes for each class in the competition.

LEFT: Assessing carcasses in the chiller are Steven Dayes, Bernie English, Mark Keating, Rob Pagano and Emma Hegarty.

carcasses that never received any prizemoney.

To do well in this competition, the body must be within the specified weight range, have minimal hump height, good ossification to weight ratio, good marbling, big eye muscle area (EMA) and meet the specifications of rib and P8 fat, fat and meat colour, and pH.

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Dehorning findings

Reducing complications after surgery

RECENT research has indicated that complications caused by dehorning contribute to the loss of 2 per cent of dehorned calves each year in northern cattle operations.

A Meat & Livestock Australia-funded project has tested a simple way of reducing complications after surgery.

The project found the application of cotton gauze surgical swabs significantly reduced haemorrhage and infection rates in the dehorning wounds of cattle affected by 'frontal sinus exposure'. It involved placing a swab over the wounds immediately after surgery, reducing blood loss and secondary bacterial infection.

The experiment was led by University of Queensland (UQ) Senior Research Fellow Dr Geoffry Fordyce, and was conducted at Mittiebah Station, on the Barkly Tableland, Northern Territory.

The research team included Northern Territory Department of Primary Industry and Fisheries officer Helen McMillan, UQ scientist Nicky McGrath and staff from the North Australian Pastoral Company.

"The experiment involved dehorning 50 six-month-old Brahman heifers, selected because of their likelihood to experience sinus exposure," Dr Fordyce said.

The research was carried out following UQ animal welfare guidelines.

"Twenty-six did not have the swabs applied and 24 did. The infection rate after surgery was 11pc for those that weren't patched, compared to 1pc for those that were.

"The swabs also reduced the extent of haemorrhage, which we expected, as it is a standard surgical practice. The swab creates a matrix to give a clot structure and strength."

MAKING IT STICK

One problem the researchers encountered was the high number of swabs that dislodged as soon as the heifers were released from the branding cradle.

"Half the patches were dislodged within a day and 21pc within an hour, and most of those were as the heifers rose quickly from the cradle," Dr Fordyce said.

"We've recommended developing a cost-effective



The application of cotton gauze surgical swabs significantly reduces haemorrhage and infection rates.

method to increase adherence of the swabs, but I think the secret will be to slow down just a little more and hold the swab on 15 or 20 seconds, until you're sure you have good adherence."

The clot and swab form a scab that falls off as the wound heals. The pure cotton swabs are biodegradable.

Dr Fordyce said the 7.5cm x 7.5cm swabs cost 2 cents each and the labour taken to apply the swab would cost about 50c per animal.

However, he said recent research in northern Australia found a 2.1pc loss of calves after dehorning and branding, compared to a 0.2pc loss of polled calves after branding. Dr Fordyce said these results indicated the cost involved with applying swabs may be recouped in higher survival rates.

"Further research is required to quantify this potential benefit," he said.

"It's possible that the effective application of swabs can replace the traditional application of chemicals used for insect and infection control."

The project also included observing the heifers' behaviour in the weeks after surgery.

"Patching had no impact on pain, recovery times or feed intake," Ms McMillan said.

She said that the results from the observations undertaken indicated that dehorned calves should be segregated from other cattle for at least two weeks after surgery.

Ms McMillan also said the observations further indicated that dehorned calves should be pasture-



Dehorned heifer with swab still adhered to wound four days after surgery.

fed, rather than hand-fed, such as with a hay or grain feeder, at this time.

DEHORNING BEST PRACTICE

Listed below are recommended dehorning best practices:

- Breed polled cattle.
- Disbud when young (about two months of age) – remove horn buds before they attach to the skull and have a hollow connected to the frontal sinus.
- Use a calf cradle when dehorning – good restraint is essential.
- Ensure the dehorning instrument is well maintained, clean and sharp.
- Remove a complete ring of hair 1 centimetre wide around the horn base to prevent regrowth.
- Use swabs to help form wound-sealing clots, especially when the frontal sinus is exposed by dehorning or there is arterial bleeding.
- Keep up to date with pain relief research and commercialisation – once available, use these methods.

For further information, download 'A guide to best practice husbandry in beef cattle – Branding, castrating and dehorning'. Note the guide does not yet include the new patching process. www.mla.com.au/beefhusbandryguide

Download the Australian Poll Gene Marker test fact sheet at www.mla.com.au/pollgenemarker

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DRY gets behind drought-affected producers

Support program

CENTACARE NQ has launched a new drought relief support program, Drought Relief Yarning (DRY). This program includes a 24/7 drought support phone line to help people impacted by drought.

The phone is staffed by experienced counsellors based in the region. The DRY line is a toll-free number, 1800 644 955, which can be accessed day or night, seven days a week.

Centacare's DRY line service can assist in the areas of depression and anxiety, relationship difficulties, loss and grief, advocacy, family support, anger management and support for children. Assistance can be provided by either a phone call or an on-property visit from one of our drought-support workers.

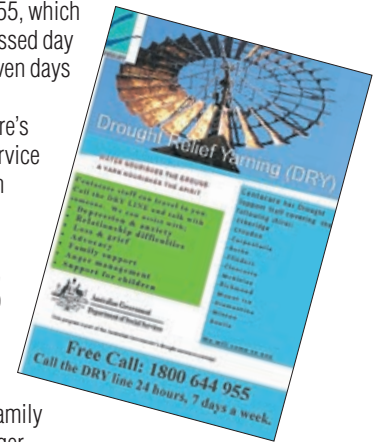
The service currently has four workers who cover 12 local government areas.

The shires included are Etheridge, Croydon, Charters Towers, Carpentaria, Doomadgee, Burke, Mt Isa, Boulia, Diamantina, Winton, Cloncurry, McKinlay, Richmond and Flinders.

The drought-support workers are attending many local events and are available for appointments when they are in the area. Coming events with a Centacare presence include:

- Birdsville Races, September 1 to 7
- Bedourie Horse Races, September 13 and 14
- Dajarra Rodeo, September 19 to 21
- Channel Country Ladies Day, Betoota, October 17 to 19

For information and support, phone 1800 644 955 or call people in your area: Bernie and Tanya Haines, Normanton, 0428 926 366; Jeanette Green, Mt Isa, 0428 799 530; and Anne Meehan, Cloncurry, 0428 805 402.



Crunching data to improve property profitability

CashCow project

FOUR years, 78,000 cows and 78 properties means a lot of numbers have been crunched, analysed and chewed over for Meat & Livestock Australia's CashCow project. The result, according to project leader Professor Michael McGowan of the University of Queensland, is a step-by-step process to help producers tackle tough questions such as: "Is my operation as profitable as it could be?"

CashCow encompassed the breadth of the northern commercial cattle industry and focused, for the first time, on investigating reproduction wastage and developing regional benchmarks for reproductive performance.

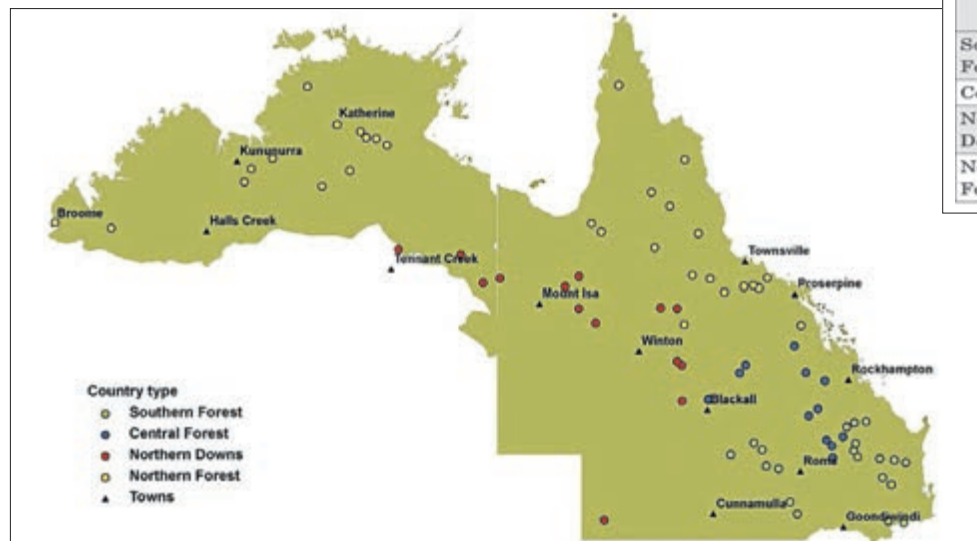
The project has now developed assessment tools and strategies to help producers set achievable targets for reproductive performance and improved profitability.

Professor McGowan said the project helped producers not only answer these questions, but also work out why underperformance was occurring and what could be done. For producing and applying benchmarks, researchers divided the northern cattle industry into four regional areas: Southern Forest, Central Forest, Northern Downs and Northern Forest.

Although CashCow focused on beef production in breeder operations in Australia's tropical zones, the fundamentals are applicable to beef enterprises everywhere. The CashCow project provides some guidance on steps producers can take to answer these questions and what benchmarks to use to assess reproductive performance.

WORK OUT OPERATING MARGIN

Detailed financial assessments can be confronting



For the purpose of producing and applying benchmarks, researchers divided the northern cattle industry into four regional areas.

but are essential to ascertaining a business' position so CashCow principles can be applied effectively. It is recommended that producers calculate their operating margin so they can answer the question: "Is my beef enterprise profitable, or as profitable as it could be?"

WORK OUT PRODUCTION BENCHMARKS

The CashCow project developed methods of working out live-weight production per cow. One reasonable indicator was weaner production. Below is an example of how weaner production is calculated.

- Weaner production:
- 500 cows retained September 2013
- 350 calves weaned 2014 at an average of 180kg
- Total weaner weight = 350 x 180kg = 63,000kg
- Weaner production = 63,000kg/500 cows = 126kg

If it is impractical, producers need not weigh every weaner, as a random sample will provide enough information for a reasonably accurate average weight.

By calculating weaner production and comparing it to the regional average, producers can assess their performance. CashCow researchers found weaner production was quite similar to annual live-weight gain of yearlings in the same environment. Measuring this is a useful indication of optimal production that should

Country type	No of mobs	Weaner Production (kg/cow)		
		Bottom 25%	Median	Achievable level
Southern Forest	33	164.0	191.0	240.0
Central Forest	33	160.7	194.6	220.1
Northern Downs	29	134.9	163.0	182.6
Northern Forest	59	74.0	93.3	112.4

be achieved from breeding herds in a specific situation. Below is an example of how the annual live-weight gain of yearlings, or live-weight production, is calculated.

Live-weight production:

- 500 steers weighing 200kg in September 2013
- 500 steers now weigh 320kg in September 2014
- Live-weight production = 320kg - 200kg = 120kg

WORK OUT PERFORMANCE BENCHMARKS

If cow herd production is below the level for a specific situation or less than 'achievable', then CashCow research identifies several potential causes.

If only pregnant females were retained and there were fewer weaners than expected, it could be due to abortion or calf losses.

"If the average weight of your weaners is down, discounting drought as an effect, it could be a fertility issue where cows are not in calf within four months of calving," Professor McGowan said. The CashCow team advised conducting annual pregnancy diagnosis on all cows to be retained, and to critically use foetal ageing to determine conception and calving dates.

To read the CashCow final report visit www.mla.com.au/cash-cowreport

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PIAG's response to northern beef crisis

Recommendations to cut debt and improve farmgate returns

PIAG

THE Pastoral Industry Advisory Group (PIAG) has had a busy few months working with Southern Gulf Catchments Limited (SGC) to prepare official responses to crises being experienced by the broader northern beef industry.

On March 31, the group hosted a luncheon for the region's beef industry with guest speaker Rob Moore presenting his proposal for the Primary Production Pricing (PPP) Bill. The PPP Bill aims to improve farmgate returns for producers through increased transparency of the beef pricing system.

Rob's presentation generated considerable discussion and debate from luncheon attendees but most agreed that the current situation is not viable.

At a private discussion following the luncheon, PIAG recognised that the PPP Bill has merit but may need further investigation and refinement to ensure it can be effectively implemented. PIAG have since written a letter of support recognising the PPP Bill warrants further investigation as one avenue that may help the northern beef industry.

AGRICULTURAL COMPETITIVENESS WHITE PAPER

Also in March PIAG met to prepare a response to the Agricultural Competitiveness White Paper put forward by the Australian Government. The paper was issued to gain industry feedback on a series of questions designed to assist the Government develop policies and direction for the future of the Australian Agriculture industry.

PIAG's response was detailed in a formal submission and was also presented to members of the White Paper Steering Committee at a meeting in Georgetown in early April.

Summary from PIAG's submission:

It was the opinion of everyone at the PIAG meeting that the next five years are critical to the viability of the northern beef industry. Subsequently the questions below have been addressed in the context of the next five years of survivability and action.

The suggestions and comments in the discussion paper are not intended as a comprehensive, researched analysis. They are a summary of the regional industry's perspective and suggestions that have been made to stimulate discussion and provide ideas for further research.

As it currently exists, the northern beef industry is



The PPP Bill aims to improve farmgate returns for producers through increased transparency of the beef pricing system.

not viable in the long term. Crippling debt and poor farm gate returns mean that many producers feel it is in the worst position in living memory.

PIAG have identified a number of areas that can be actioned in the next five years to provide positive outcomes for the industry.

Key to any progression will be a reduction in debt and an increase in production margins by reducing the costs of production and/or increasing the price received at the farm gate. The following dot points briefly identify actions that will be further expanded in the full submission.

REDUCE GOVERNMENT COSTS TO PRODUCERS

- Diesel and freight are the biggest costs to producers and both can be actioned immediately
- Fuel excise amended so the primary producer reduces costs
- Option for registration of farm vehicles and equipment to be paid per kilometre used on-road
- Land rent abolished or significantly reduced
- Support existing and developing markets
- Develop northern export and transport infrastructure including freight airport in Townsville, port development in Darwin and Townsville, making rail line between Mount Isa-Hughenden more accessible to producers, and create rail link between Mount

Isa-Tennant Creek

- NLIS is a strong marketing tool that is underutilised in export promotion – producers not getting the financial advantage
- Irrigation – need water storage facilities, accessible pricing structure, complementary to beef industry and supports northern primary production industry as a whole – improve existing and open further development

The live export debacle cannot happen again, the whole beef industry will be wiped out – many producers believe the ban cost every beef producer hundreds of thousands of dollars and set producers and the industry back a decade or more. Future scenarios such as this should be handled with more consideration of long term impacts on industry and international relations.

REDUCING DEBT LEVELS

Foreign capital investment – free up producers' finances for production outcomes
Explore models such as Australian Reconstruction and Development Bank – similar models have been successful in the past

EFFECTIVE INDUSTRY CONSULTATION

Lack of confidence in large industry groups – there is a significant divide between producers' opinions and the messages being promoted by industry groups
Need better political representation and information on how to get feedback up the chain including an avenue for organisations independent from recognised industry groups.

Keeping industry support in rural and remote areas
Stop and/or reverse decline in research, extension and support services available in the rural and remote areas where they are needed.

There will be no simple answer to get the northern beef industry on track to be viable. A combination of long term planning, foresight, and immediate action is required; using a range of approaches to improve price received at the farm gate, and reduce the costs associated with producing beef and other agricultural products in northern Australia.

PIAG appreciate the opportunity to have input into the future of the beef industry and are encouraged that issues are being discussed. The action to follow is keenly anticipated.

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Graziers learn erosion control to save their soil

Grader workshops

GRAZIERS from across the southern Gulf attended two erosion control workshops in April 2014. Workshop presentations were made by Darryl Hill from SoilSave and Bob Shepherd from the Queensland Department of Agriculture, Fisheries and Forestry's FutureBeef team.

The focus of the workshops was to develop practical skills for minimising and repairing soil erosion to assist with property management and improve production. Participants from both workshops commented on the value of using the dumpy level rather than judging by eye.



Participants take turns using the dumpy level with help from Bob Shepherd.

"It is really surprising how deceptive the lay of the land can be, unless you are actually at the site watching the water flow. It is very easy to fall into the trap of putting the right works in the wrong place. This of course can often make the problem worse."

Darryl Hill from SoilSave ran two workshops in the Southern Gulf that were well attended by producers.



Thank you to the workshop hosts Dave, Jan, Bruce and Jess Collyer at Rosevale station, north of Hughenden. As well as Fred and Carmel Shephard on the NAPCo property Boomarra station, south of Burke and Wills Roadhouse. Funding for the workshops was made available through the Soils4Grazing project funded by the Australian Government Department of Agriculture as part of its Carbon Farming Futures - Action on the Ground program.



Darryl Hill talks dumpy levels with workshop participants. —Source: Carmel Shephard.

"We really enjoyed it. It was interesting to find out what you can do to stop erosion because we try to do as much as we can. Surveying equipment was the really new bit to us – a very handy implement to have on the place."

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There's light at the end of the tunnel

Industry forum gives Gulf beef producers new hope

Improving profitability

GROWING rural debt, a second failed wet season, grim autumn market prices and decreasing terms of trade have made it difficult for many graziers in the Gulf of Carpentaria to see a way forward.

However, a beef industry forum held in Georgetown on June 26 was able to shed some promising light for more than 60 graziers in attendance.

The forum was facilitated by Northern Gulf Resource Management Group (NGRMG) and funded by the federal government under the Regional Landcare Facilitator Program.

Dr Ian Braithwaite, a leading cattle-production veterinarian, was the featured guest speaker at the forum. Dr Braithwaite works extensively with beef businesses across northern Australia, identifying opportunities to improve profitability.

His work involves strategic herd management, integrated with pregnancy testing. At the forum, Dr Braithwaite discussed the financial losses associated with overstocking and late 'out-of-season' calving.

Dr Braithwaite was able to highlight to the graziers at the forum the financial value of managing calving periods. He spoke of the importance of having cows calve from October through to April, and demonstrated why a tighter drop in October to December is optimum.

Dr Braithwaite also emphasised the need to spell perennial grasses to encourage better moisture retention, nutrient utilisation and increased soil nutrition. He provided graziers with the following key 'take-home' messages:

- Northern producers need to be better grass farmers.
- Consider your business model – profitability must be the main driver, not production.
- The lighter the country, the tighter the calving pattern needed in order to make a profit.
- Significant cost savings are made by bringing the calving pattern into the optimum period of October to April.
- The optimum calving period will maximise rebreed rates and reduce breeder and weaner mortality rates.

There are a range of veterinarian services available to assist with managing calving pattern, such as foetal



ABOVE: Rob Atkinson, chairman of North Beef, informs graziers of the work being undertaken by the group to rally support for a northern Queensland slaughter facility.

ageing. To increase the cost-effectiveness of hiring a vet for pregnancy testing and administering medicines, graziers should consider aligning work to share travel costs.

Increasing watering points can be an effective way of increasing carrying capacity, or at least better using available feed to improve herd profitability.

MISSION IMPOSSIBLE

THE ANZ state manager for agribusiness, Jeff

Calving group by month	Gross margin	Mortality	Response to production supplement	Part of this year's cash flow
Oct Nov Dec	\$281	3%	yes	no
Jan Feb Mar Apr	\$61	4%	no	no
May Jun Jul Aug Sep	-\$104	8%	no	yes

Table 1: Dr. Braithwaite provided graziers with examples of the impact calving period has on gross margin, mortality rates, and management and financial considerations.

Schrale, also spoke at the forum. Mr Schrale pulled off 'mission impossible', as he was warmly received by participants despite discussing some difficult financial issues.

● To next page



More than 60 graziers attended a beef industry forum in Georgetown.

Winter webinars keep northern Gulf women informed

Follow-up to Mt Surprise workshop

NORTHERN Gulf Resource Management Group (NGRMG) has hosted a series of 'Winter Webinars' for women in the northern Gulf region.

The webinars were a follow-on from the Resourcing Women of the North workshop, held at Mt Surprise on April 29-30.

The webinars were developed from feedback provided by the participants of the workshop.

Participants identified areas that they wanted to further pursue and gain knowledge on.

The webinars were facilitated by Julia Telford from Engage and Create Consulting, and included



Participants of the Resourcing Women of the North workshop provided feedback on topics for the follow-up Winter Webinar series.

presentations from three guest speakers. Bob Ward from Rural Skills Australia spoke to the webinar participants about valuing their existing skills. He encouraged the participants to make the most of the recognition of prior learning opportunities that are available. Joy McClymont from Off the Track Training provided the participants with some great tips on keeping fit in the outback, and even had participants doing squats during the webinar.

Alison Hamilton, principal of AJM Livestock Solutions, spoke to the participants about her business and journey into a rural leadership role. Alison discussed with the participants the challenges that she had faced along the way.

The Winter Webinar series was recorded and can be viewed online. You can find the link on the NGRMG Facebook page, under events: www.facebook.com/northerngulf/events

Webinars are a great way for rural women to interact and access training and information without having to leave home. For women living in remote areas, attending workshops or training seminars can involve days of travel. Travelling away from the home and business to attend events often means many rural women have to find child minders, caretakers and other people during their absence. Webinars are great opportunities that allow rural women to participate in educational activities from the comfort and convenience of their home.

Erica Blumson, education officer with NGRMG, encourages women in the region to tap into these opportunities.

"Using webinars can be a bit daunting at the start, but once you've mastered the technology, it's a great way for women in regional and remote areas to get access to quality speakers," Ms Blumson said.

She said as technology and internet access improved in remote areas, the opportunities available via webinars would be exciting for rural women.

Rural women's networks such as the Queensland Rural, Regional and Remote Women's Network (QRRRW) and the National Rural Women's Coalition (NRWC) run regular webinars on a range of topics.

Visit the websites below or become a member to receive notification of upcoming webinars:

Visit the Queensland Rural Regional and Remote Women's Network at www.qrrrnonline.wildapricot.org or the National Rural Women's Coalition at www.nrwc.com.au

The next Resourcing Women of the North event is planned for Mareeba on October 15, to help celebrate International Rural Women's Day.

For further details contact:

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Graziers get message on calving management

● From previous page

Mr Schrale spoke of the importance of financial control and the consequences of not maintaining realistic livestock and cash flows. He discussed the need to maintain credibility with lenders and how to get the most out of the bank.

He highlighted that it was not in the best interests of rural banks to fold farm businesses, and it was instead better for lenders to see farm businesses prosper.

Mr Schrale also presented data to the graziers showing the growth in the Chinese middle class and their preference for 'safe' grassfed beef. He said that ultimately, this growth offers a promising future for extensive grazing operations in the north.

This outlook was also reinforced by CEO of NGRMG Neil Newton, who presented his vast knowledge and experience of the Chinese marketplace and the promising opportunities facing northern graziers.

NORTH BEEF INPUT

North Beef president Rob Atkinson gave an overview of the incorporated, not-for-profit group.

He spoke of the work undertaken by the group to seek investors and government support for a northern Queensland beef-slaughter facility.

Mr Atkinson said the proposed model would provide the northern beef industry with huge cost savings in transport. He said it would also provide a strong alternative to the limited market options that are available today. The model looks at minimising labour by focusing on quartering carcasses, which would then be processed in the importing country, thereby suiting the cultural practices of that country.

DEPT OF AGRICULTURE, FISHERIES AND FORESTRY (DAFF) AND BEEF \$ENSE PROJECT

The DAFF Far North FutureBeef Team and



Jeff Schrale from ANZ speaks to the graziers about the importance of financial control and maintaining credibility with lenders.

agribusiness consultant Alison Larard have been implementing the BeefSense project throughout the Northern Gulf.

This project aims to provide technical assistance in both production and finance management to graziers.

At the forum, Ms Larard and the FutureBeef Team provided graziers with a reality check of the difficult financial situation that many find

themselves in, and the importance of good financial control and management.

The team also emphasised the need to look at productivity improvements to keep pace with increasing costs of production.

SUPPORT PROGRAMS

Sam Spina, a regional client liaison officer

from specialist government financial assistance administrator QRAA, spoke to the graziers about the support that is currently available for northern graziers.

Mr Spina spoke about the support on offer for graziers, including the drought concessional loans scheme, farm finance concessional loans and primary industries productivity enhancement. He also provided information on eligibility and the conditions that must be met in order for graziers to receive the support.

For further information on the support available from QRAA, contact Sam Spina on (07) 4064 2824.

NGRMG SUPPORT

Staff from NGRMG provided graziers at the forum with an overview of the services and support being provided by the group. Regional mapping services co-ordinator Ricky Archer covered the value of the GIS mapping services. Corporate services manager Norelle Ryan also spoke about important workplace health and safety requirements for graziers. For further information or assistance, the NGRMG staff can be contacted at the Georgetown office on (07) 4062 1330.

GULF CATTLEMEN'S ASSOCIATION

Other speakers at the forum included Northern Gulf Graziers Group chairman Barry Hughes, who informed graziers that the group has had a name change and is now known as the Gulf Cattlemen's Association.

Mr Hughes informed the graziers that this group is representing graziers from the greater area of the Gulf. He also acknowledged the effort the group has made in bringing the issues facing graziers to government representatives. Mr Hughes went further to thank Russell Lethbridge and Rob Atkinson for their support.

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Is bigger always better when it comes to beef businesses and profitability?

Issues of scale

THE size of a business has an effect on its performance. However, does that mean that if you are a smaller producer that you have to 'get big or get out'? Is bigger always better?

Scale is not the only requirement for profitability – there are a lot of big beef businesses losing money.

Scale (number of adult equivalents run) affects the business in a number of ways, and if you have profitable cattle, then the more of them you have, the better – up to a point. The Northern Beef Report: 2013 Situation Analysis (NBR) recently released by Meat & Livestock Australia analysed the whole of the northern beef industry by region, herd size and market.

The herd size analysis was by four herd size groupings. These are shown in the table, along with profit (before interest and tax) per adult equivalent (AE) for the average, and top 25 per cent performers within each herd size group.

The accompanying table shows a number of important things.

Scale is a major constraint in the two smaller groups, with average producers recording a loss before interest and tax. It is the second largest group that has the highest herd profits (1600 to 5400hd), not the largest group.

There is a significant difference between the average and top 25pc performers in each group. This difference is so great that the top 25pc of producers in the second smallest group (800 to 1600), constrained by scale, are making higher herd profits

Herd Size (No. head)	Avg Profit /AE	Top 25% Profit/AE
200 – 800	(\$122)	(\$14)
800 – 1,600	(\$4)	\$51
1,600 – 5,400	\$39	\$91
5,400 +	\$36	\$75

than the average producers in the two largest groups. The factors separating the top performers were analysed in detail, but in summary, when scale is excluded, the top-performing producers consistently have:

- Higher income/AE through higher kg beef/AE.
- More income per AE due to better productivity (a function of higher reproductive rate, lower mortality rate and higher sale weights).
- Lower and more targeted enterprise expenses per AE.
- Lower overhead expenses, as a result of better labour efficiency.
- A lower asset base.

The factors above are few, straightforward, largely within the control of management, and can be

addressed independent of scale.

The top 25pc performers in the smallest group are achieving a loss, indicating that lack of scale is an insurmountable constraint for them.

However, if you are an average producer in any of the other three groups wanting to increase your profits, then you would be better off improving your performance at your current size rather than thinking getting bigger is the solution. This goes against the usual thinking of 'get big or get out'.

Even average producers in the smallest group would be better off, initially, focusing on performance before looking to increase scale.

In fact, for all beef producers looking to lift profits, the primary focus should be on improving performance before and while increasing scale.

If you focus on increasing scale, without improving productivity, herd expenditure and labour efficiency, then you will just make the problem bigger, not more profitable. Top 25pc performance is not achievable by everyone. However, understanding what it is that makes them more profitable and focusing on those areas in your business will improve your performance. The factors that separate them are few and relatively straightforward. The Northern Beef Report and its findings are discussed in detail in the Business EDGE workshops. The Business EDGE workshops were developed by Meat & Livestock Australia to provide essential business skills for beef producers to understand and improve their business performance.

In these workshops you will learn to:

- Determine if your business is economically sustainable in the long term, and if not, what to do about it.
- Prepare and understand key financial information for your business.
- Determine if your herd is performing as it should.
- Determine if your debt is creating or destroying wealth, and how much your business can afford.
- Rationally allocate capital expenditure so that asset values, profits and cash flows improve over time.
- Provide and plan for succession and retirement so each event is fully funded.
- Determine if all the family needs and aspirations can be funded by the business.

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Weeds put on notice

WoWW project targets bad ones

Five-year project

The War on Western Weeds (WoWW) project is aiming to reduce the impact and spread of prickly acacia and bellyache bush (two of Australia's worst weeds) in western Queensland through improved weed management, research and training.

The WoWW project is a five-year, \$1.88 million Queensland government initiative managed by the Department of Agriculture, Fisheries and Forestry (DAFF) and will run until June 2018.

One of the WoWW project focus areas is roughly bound by Hughenden, Julia Creek, Winton, Longreach, Barcaldine and Aramac. This is an area where prickly acacia has been identified as having a significant impact. The project is also strategically targeting other infestation areas such as the lower Gulf between Burketown and Normanton and areas in central Queensland.

WHAT WOWW WILL DO

Key WoWW activities include:
● Testing new weed management techniques, including spray misting and aerial herbicide

application, as well as grazer innovations.

- Identifying and testing new biological controls, including insects and pathogens.
- Developing biosecurity systems and actions to reduce the spread of weeds within and between properties.
- Improving planning and management for weed control at all levels (from individual properties to across a regional scale).
- Identifying and researching characteristics of prickly acacia and bellyache bush where more information is required. This will include topics identified by communities affected by weed infestations.
- Promoting best practice weed management through field days and forums.

WOWW IN ACTION

The project is already:

- Working with graziers and Natural Resource Management (NRM) groups to refine spray misting for prickly acacia control, with trials in the Barcaldine, Winton and Julia Creek areas.
- Partnering with Flinders Shire Council on a Good Neighbour Program pilot case study at Hughenden to



Project participants inspect a weed-free buffer zone around Hughenden.

assess the effectiveness of weed-free buffer zones.

- Partnering with Carpentaria Land Council to trial aerial spot-dropping of herbicides in the lower Gulf region. This will involve the comparison of the aerial drop with the ground application technique.
- Helping to improve planning for prickly acacia management through the development of regional plans for the Desert Channels and southern Gulf areas of western Queensland.
- Researching prickly acacia invasion, including seed longevity, germination, and dispersal during floods.
- Investigating possible biological control agents for prickly acacia which include: the green leaf-webber, babul scale, leaf weevil and acacia leaf-gall mite (prickly acacia) as well as investigating the potential of the *Jatropha* leaf-miner as a biological control agent for bellyache bush.

WORKING TOGETHER FOR WOWW

This project is an excellent opportunity for graziers,

local government, industry and regional NRM groups to work together with DAFF to find better weed control solutions.

There are a number of stakeholders contributing to the WoWW project activities.

An advisory group has also been formed and meets regularly to provide community input into the project. Technical services for the weed management trials for the project are being provided by Southern Gulf Catchments Ltd. The project is partnering with graziers to trial weed control methods and to gather case studies on how different properties are tackling prickly acacia infestations.

If you would more information or to get involved with the WoWW project call the DAFF customer service centre on 13 25 23 and ask for the WoWW project officers.

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Gaining a better industry understanding with DAFF's beef producer survey

Vaccination focus

TO PROVIDE a better understanding of beef industry practices, the Department of Agriculture, Fisheries and Forestry has been surveying beef producers in selected regions.

This information will be used to better target research and extension activities. Herd and grazing management information was collected in 2011 and 2012 from 213 producers in the Burnett Mary, Fitzroy, Mackay Whitsunday and Burdekin regions. This article covers vaccines being given to key classes of stock.

BULLS

The survey showed that despite bull vibriosis vaccination being a long-standing recommendation, more than half the producers in the four regions were not vaccinating their bulls for vibriosis (Figure one).

As bulls transmit the disease, there is considerable risk of vibriosis reducing pregnancy rates in herds where bulls are not vaccinated. In most situations an effective bull vaccination program prevents losses.

While bulls do not transmit leptospirosis and females need to be vaccinated against it to prevent the disease causing late-term abortions and new-born calf deaths, it is most effectively managed if all animals in the breeding herd are vaccinated.

Protection can be provided by using a leptospirosis vaccine or a 7-in-1 vaccine which also provides protection against the clostridial diseases (black leg, tetanus, pulpy kidney, blacks disease and enterotoxaemia). The data in Figure One shows very low levels of bull vaccination with either leptospirosis or '7 in 1' vaccine in all regions.

The choice of a leptospirosis only or a '7 in 1' vaccine for bulls should be based on the risk the clostridial diseases present in the property situation. Your local veterinarian or beef cattle advisor can provide advice.

The surveys also show very low levels of bull three day vaccination. While three day sickness does not directly cause reproductive losses, the disease can kill valuable bulls and the fertility of some bulls can be permanently affected. Three-day vaccination is important where single sire mating groups are used.

BREEDERS

Leptospirosis vaccination of breeding females can prevent it causing late term abortions and new-born calf deaths; it is also a critical strategy for reducing the risk of transmission to humans. Humans can be exposed to the leptospira organisms when they come into contact with cattle urine.

Vaccination rates for leptospirosis for both breeders and replacement heifers were low. Across the four regions, the percentage of producers not using a leptospirosis or 7-in-1 vaccine for breeders ranged from 57 to 86pc (Figure 2). For replacement heifers it ranged from 49 to 77pc of producers.

The choice of a leptospirosis only or a 7-in-1 vaccine for breeders should be based on the risk the clostridial diseases present in the property situation. If these diseases do not present a risk to breeding

females, leptospirosis vaccine is cheaper than a 7-in-1 product. Heifer selection and management strategies are also a consideration.

Where yearling mating is undertaken, using a 7-in-1 vaccine at branding and weaning means that the heifers are ready for mating at the end of their weaning year without any additional handling. With two-year-old joining, there is more time to fit vaccinations in with handling and heifer selection and a program of two initial doses of leptospirosis vaccine prior to joining can be a cheaper option. Your local veterinarian or beef cattle advisor can provide advice on the appropriate strategy for your situation.

WEANERS

Figure three shows that the percentage of producers vaccinating weaners against clostridial diseases ranges from 94pc in the Burnett Mary to 57pc in the Burdekin. Blackleg is the most common risk for calves and the higher risk in the southern and eastern parts of Queensland is reflected in the higher vaccination rates in the Burnett Mary.

The choice of 5-in-1 should be based on the class of animal and its future role in the herd and management. There is little value vaccinating steers with 7-in-1 as leptospirosis cannot affect their productivity and there is far less chance of humans being exposed to urine when handling steers. However, as discussed earlier using a 7-in-1 vaccine may be the most effective strategy for heifers.

The relatively low rates of tick fever vaccination is an interesting finding as it means large numbers of cattle in these regions are at risk of tick fever. While many of these cattle will have regular exposure to ticks it does not necessarily mean they have developed resistance to tick fever.

In 2013, there were a number of serious cases of tick fever in central Queensland. Another consideration is that the Brahman content of herds has tended to reduce over the past 10 years, potentially increasing the risk. Tick fever vaccine is expensive but it confers life-time immunity and so is a good investment.

While tick fever vaccination is more complex due to the product having to come from Brisbane and having a three-day shelf life, the fact that producers in very

isolated areas have been using it for years indicates the logistic issues are manageable. The easiest approach is to plan to give weaners the vaccination the day they are turned out to the weaner paddock after the weaner handling period.

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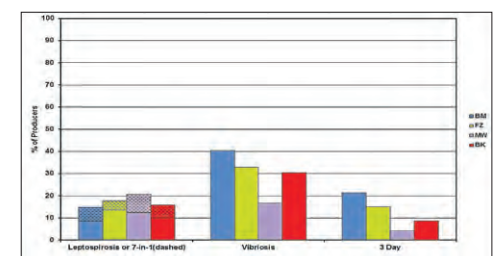


FIG 1: Percentage of producers undertaking key bull vaccinations in the Burnett Mary (BM), Fitzroy (FZ), Mackay Whitsunday (MW) and Burdekin (BK) regions.

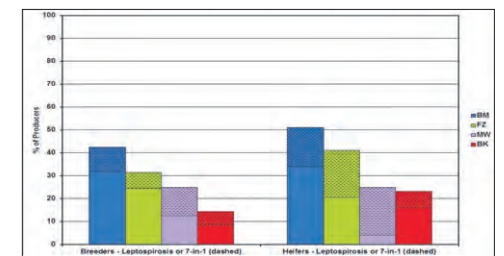


FIG 2: Percentage of producers vaccinating breeders and replacement heifers with leptospirosis or '7 in 1' vaccine in the Burnett Mary (BM), Fitzroy (FZ), Mackay Whitsunday (MW) and Burdekin (BK) regions.

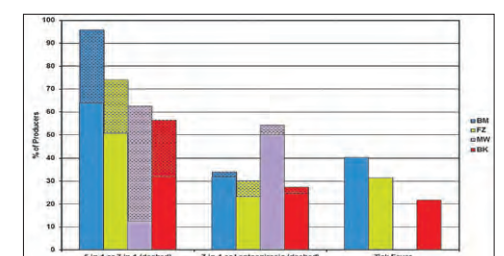


FIG 3: Percentage of producers undertaking key weaner vaccinations in the Burnett Mary (BM), Fitzroy (FZ), Mackay Whitsunday (MW) and Burdekin (BK) regions.

Want to complete chemical accreditation?

The SMART train Chemical Accreditation One-day Workshop now offers complete chemical accreditation in a single course.

The Workshop covers all required aspects of safe chemical use for agriculture and veterinary producers & has been coordinated and subsidised by Southern Gulf Catchments Limited as part of the Regional Landcare Facilitator Program.

Cloncurry (Gidgee Inn Motel) 5th November 2014
Richmond (Richmond Shire Hall) 6th November 2014

Workshop details here & only \$100!!

To register or for further information please contact Pru Wharton, Regional Landcare Facilitator
ph. 07 4743 1888 or email landcare@southerngulf.com.au

Registrations close 1 October 2014

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